

## CLAIMS:

1. A method of detecting a presence of a circuit extending arrangement (111, 112) inserted between a physical interface (115), connected to a terminal (101), and a smart card (100), the physical interface (115) being adapted to receive the smart card (100), the method comprising the steps of:

5     • measuring at least one electrical characteristic of the physical interface (115), and  
   • determining whether a circuit extending arrangement (111, 112), changing at least one characteristic of said physical interface (115), is coupled to said physical interface (115) on the basis said measurement.

10 2. Method according to claim 1, characterized in that said step of measuring comprises:

- measuring a first current provided from said terminal (101) to said smart card (100) via said physical interface (115),
- measuring a second current returned from said smart card (100) to said terminal (101),

15 and in that said method further comprises the step of

- comparing whether said first and said second current is substantially equal, and if not determining that a circuit extending arrangement (111, 112) is present.

20 3. A method according to claim 1, characterized in that said method further comprises a step of:

- comparing said measured at least one electrical characteristic with at least one electrical characteristic as calibrated during manufacture.

25 4. A method according to claim 1, characterized in that said physical interface (115) has been calibrated to create at least one viable, but non-stable, electrical property at the physical level, the at least one property allowing normal transaction with said smart card (100), but causing the interface to fail if an circuit extending arrangement (111, 112) is coupled to said physical interface (115).

5. A method according to claim 4, characterized in that said at least one non-stable electrical property relates to current and/or voltage characteristics of said physical interface (115).

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6. Method according to claims 1 – 5, characterized in that the method further comprises the step of:

- regulating the use of the smart card (100) on the basis of said step of comparing.

10 7. A terminal for detecting a presence of a circuit extending arrangement (111, 112) inserted between a physical interface (115), connected to said terminal (101), and a smart card (100), the physical interface (115) being adapted to receive said smart card (100), the terminal (100) comprising a monitoring circuit (114) comprising

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- means (102a, 102b) for measuring at least one electrical characteristic of the physical interface (115), and
- means (104) for determining whether a circuit extending arrangement (111, 112), changing at least one characteristic of said physical interface (115), is coupled to said physical interface (115) on the basis an output of means for measuring (102a, 102b).

20 8. A terminal according to claim 7, characterized in that said means for measuring comprises:

- a first measure circuit (102a) measuring a first current provided from said terminal (101) to said smart card (100) via said physical interface (115),
- a second measure circuit (102b) measuring a second current returned from said smart card (100) to said terminal (101),

25 and in that said terminal further comprises

- a comparator (103) connected to said first and second measure circuit (102a, 102b) and adapted to compare whether said first and said second current is substantially equal, and if not generating a signal representing that a circuit extending arrangement (111, 112) is present.

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9. A terminal according to claim 7, characterized in that said terminal further comprises a comparator (103) for comparing said measured at least one electrical characteristic with at least one electrical characteristics as calibrated during manufacture.

10. A terminal according to claim 7, characterized in that said physical interface (115) has been calibrated to create at least one viable, but non-stable, electrical property at the physical level, the at least one property allowing normal transaction with said smart card 5 (100), but causing the interface to fail if an circuit extending arrangement (111, 112) is coupled to said physical interface (115).

11. A terminal according to claim 10, characterized in that said at least one non-stable electrical property relates to current and/or voltage characteristics of said physical 10 interface (115).

12. A terminal according to claims 7 – 11, characterized in that the terminal (101) further comprises:

15 • means (106) for regulating the use of the smart card (100) on the basis of said signal from said comparator.

13. A computer readable medium having stored thereon instructions for causing one or more processing units to execute the method according to any one of claims 1 – 6.